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US EPA RECORDS CENTER REGION 5

HALEY& ALDRICH

February 10, 2009 File No. 27080-201

United States Environmental Protection Agency, Region 5 77 West Jackson Blvd., SR-6J Chicago, Illinois 60604

Attention:

Terese Van Donsel

Remedial Project Manager

Fred Micke

On-Scene Coordinator

Subject:

Monthly Progress Report for January 2009

RI/FS and Removal Action

North Bronson Former Facilities Site

Former Scott Fetzer Facility - Operable Unit 3 (OU3)

Bronson, Michigan

Dear Ms. Van Donsel and Mr. Micke:

As required by Article VI, Paragraph 2.3 of the Administrative Order by Consent for completion of a Remedial Investigation/Feasibility Study (RI/FS), as well as Article VIII, Paragraph 20 of the Administrative Settlement Agreement and Order on Consent for Removal Action (RA), at the above-referenced Site, and on behalf of Scott Fetzer, Haley & Aldrich, Inc. (Haley & Aldrich) is hereby submitting the monthly progress report for work performed on the RI/FS and Removal Action during January 2009.

1. Activities Completed During This Reporting Period:

- Scott Fetzer submitted the December 2008 monthly progress report to USEPA on January 9, 2009.
- A proposed scope of work for soil sampling along the outer perimeter of the former Annex/CDF parcel of the former Scott Fetzer facility is provided in the attached memo. The scope of work was prepared pursuant to the November 18, 2008 U.S. EPA and MDEQ Comments on the Draft Feasibility Study Report Former Scott Fetzer Facility OU (B5Y1-03) Docket No. V-W-02-C-700 and a November 19, 2008 conference call with the USEPA and MDEQ.

2. Summary of Collected Data:

Final, validated results of the indoor air sampling conducted at Non-responsive in December 2008 are provided in the attached summary table. Proposed additional mitigation work related to Non-responsive is described in the attached memo.

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3. Documents Completed and Submitted During this Reporting Period:

The revised feasibility study report text and a response to USEPA comments were submitted on January 22, 2009.

4. Problems Encountered During this Reporting Period:

Problems were not encountered during this reporting period.

5. Scheduled Activities for the Next Reporting Period:

There are no scheduled activities for the next reporting period.

6. Anticipated Problems and Planned Resolutions During the Next Reporting Period:

There are no anticipated problems during the next reporting period.

7. Summary of Proposed or Approved Changes to the Work Plans or Schedules

Scott Fetzer proposes no changes at this time to proposed or approved work plans or schedules.

Scott Fetzer is hereby notifying USEPA that Eric Pigati will replace Rob Wilhelm as project coordinator for the work performed related to the above-referenced AOC for completion of a RI/FS and the Administrative Settlement Agreement and Order on Consent for Removal Action. Eric Pigati's statement of qualifications are attached to this progress report.

If you should have any questions or comments regarding this progress report, please do not hesitate to contact me at your convenience.

Sincerely yours, HALEY & ALDRICH, INC.

Qui Pigati

Eric Pigati, P.G. Senior Hydrogeologist Project Coordinator

cc: United States Environmental Protection Agency; Attn.: Larry Johnson, Esq. Michigan Department of Environmental Quality; Attn.: Deborah Larsen

Jones Day; Attn.: Stephen Giblin, Esq.

The Scott Fetzer Company; Attn.: Patricia Scanlon, Esq.



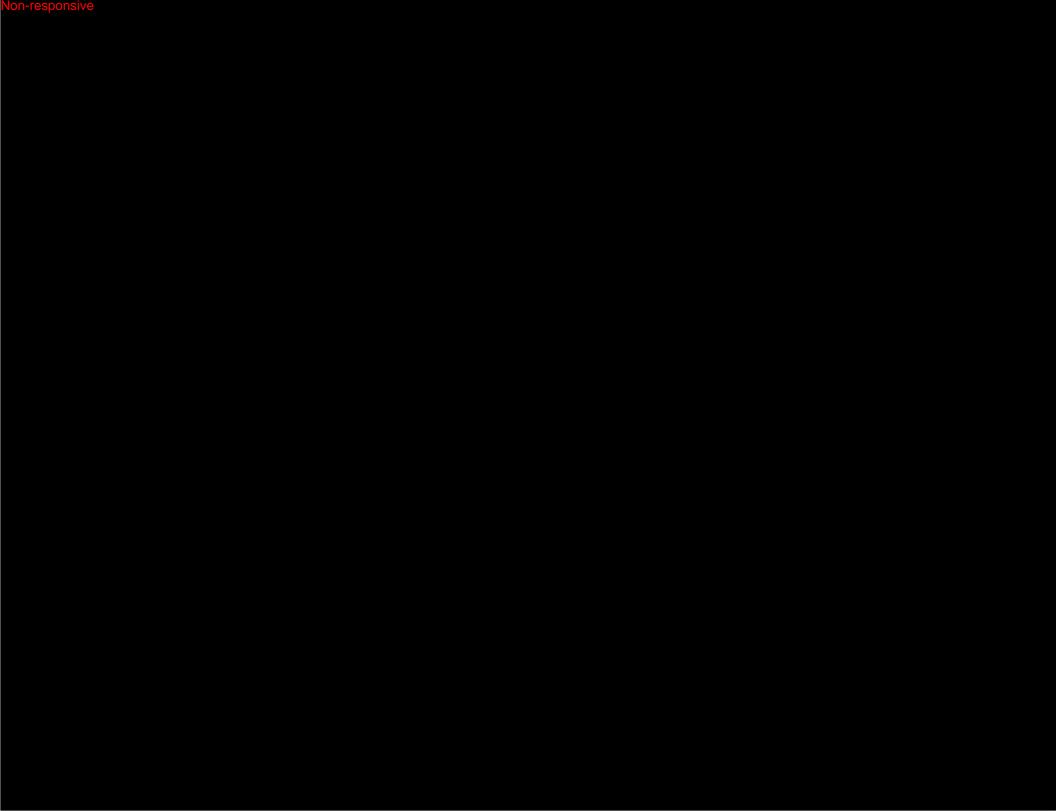


TABLE I SOIL VAPOR INTRUSION INVESTIGATION RESULTS Former Scott Fatzer Facility - NBFF OU3 Bronson Michigan

																1		
			Address		N. I					Man					N			
			Sample Type	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Indoor Air	Soil Gas	Indoor Air	Soil Gas	Soil Gas	Soil Gas	Indoor Air	Soil Gas	Soil Gas
			Sample ID	SFSG11	SFSG11	SFSG11	SFSG11	\$FSG06	SFSG06	SFIA06	SFSG06	SFIA06	SFSG06	SFSG04	SFSG04	SFIA04	SFSG04	SFSG04
			Units	ug/m³	ug/m³	սց/m³	ug/m³	⊔g/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³
			Sample Date	9/26/2007	1/15/2008	5/7/2008	8/21/2008	9/26/2007	1/15/2008	1/16/2008	5/6/2008	5/7/2008	8/19/2008	9/26/2007	1/15/2008	1/16/2008	5/7/2008	8/19/2008
Constituent	DEEP 5' Residential	Sub-Slab Residential	NBFF Indoor Air															
1	ASGSCs (ug/m³)	ASGSC (ug/m²)	Removal Criteria (ug/m3)	ł														
Chloroethane	5000000	500000	100000	<11	< 0.53	<11	<0 53	<11	<11	<0.53	<21	<11	<11	<11	<0.53	<0 53	<1.1	<11
1 1-Dichloroethane	260000	26000	5000	<16	<08	<16	<0.8	<16	<16	<0.8	<32	<16	<16	<16	<0.8	<0.8	<16	<16
1 1-Dichloroethylene	250	25	2000	<16	<0.79	<16	<0.79	<16	<16	< 0.79	<32	<16	<16	<16	<0.79	< 0.79	<16	<16
cis-1 2-Dichloroethylene	18000	1800	350	<16	<0.79	<16	<0.79	29	3	< 0.79	<32	<16	<16	<1.6	<0.79	< 0.79	<16	<16
trans-1 2-Dichloroethylene	37000	3700	700	<16	<0.79	<16	<0.79	<16	<16	<0.79	<32	<16	<16	<16	<0.79	< 0.79	<16	<16
Tetrachloroethene	21000	2100	81	10	49	11	18	30	9 5	<14	350	<2 7	120	53	19	3 1	86	81
1 1,1-Trichloroethane	500000	50000	22000	<22	<11	<22	<11	120	33	<11	54	44	60	23	7 1	<11	8 2	13
1 1 2-Trichloroethane	750	75	15	<22	<11	<22	<11	<2 2	<22	<11	<44	<22	<22	<22	<1 1	<11	<22	<22
Trichloroethene	7000	7 0 0	22	<21	< 1 1	<21	33	1800	380	<11	590	<21	750	1300	280	<11	300	590
Vinyl Chlonde	2800	280	28	<10	< 0.51	<10	<0.51	<10	<10	<0.51	<20	<10	<10	6.6	< 0 51	<0.51	<10	<10

			Address	T		Mari									Man					
			Sample Type	Soil Gas	Indoor Air	Indoor Air	Soil Gas	Soil Gas				Indoor Air	Sub Slab	Indoor Air	Soil Gas	Soil Gas	Soil Gas	Indoor Air	Indoor Air	Indoor An
			Sample ID	SFSG03	SFIA03	SFIA03	SFSG03	SFSG03	SFSG03	SFSG02	SFSS02	SFIA02	SFSS02	SFIA02	SFSG02	SFSG02	SFSG02	SFIA02	SFIA02	SFIA02
			Units	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³
			Sample Date	9/26/2007	9/25/2007	10/31/2007	1/15/2008	5/7/2008	8/19/2008	9/26/2007	9/25/07	9/25/2007	10/31/2007	10/31/2007	1/15/2008	5/9/2008	8/19/2008	8/20/2008	12/15/2008	12/30/2008
Constituent	DEEP 5' Residential	Sub-Slab Residential	NBFF Indoor Air																	
	ASGSCs (ug/m²)	ASGSC (ug/m³)	Removal Criteria (ug/m3)																	
Chloroethane	5000000	500000	. 100000	<11	<11	<11	< 0 53	<2 1	<11	<42	53	<1 1	<42	<11	<11	<21	<2 1	<0.53	<42	< 0 53
1 1-Dichloroethane	260000	26000	5000	<16	<16	<16	<0 B	<32	<16	<6 4	<32	<16	<64	<16	<16	<32	<32	<08	<64	<0.8
1 1-Dichloroethylene	250	25	2000	<16	<16	<16	< 0.79	<32	<16	<63	<32	<16	<63	<16	<16	<32	<32	<0.79	<63	<0.79
cis-1 2-Dichloroethylene	18000	1800	350	<16	<16	<16	<0.79	<32	<16	<63	4.8	<18	<83	<16	< 1.6	<32	<32	<0.79	25	36
trans-1 2-Dichloroethylene	37000	3700	700	<16	<16	<16	<0.79	<32	<16	<63	<32	<16	<63	<16	<16	<32	<32	<0.79	<63	< 0.79
Tetrachloroethene	21000	2100	81	24	<27	<27	<14	54	30	<11	20	<27	29	<27	<27	200	11	<14	<11	1.4
1 1 1-Trichloroethane	500000	50000	22000	39	<22	<22	16	15	19	11	82	<22	100	<22	27	<44	4 5	<1 1	<8 7	19
1 1 2-Trichloroethana	750	75	15	<22	<22	<22	<11	<4 4	<22	<87	<44	<22	<87	<22	<22	<44	<44	<11	<8 7	<11
Trichloroethene	7000	700	22	310	<21	<2 1	9 1	130	150	1500	2600	7	5400	7	640	700	1300	19	120	160
Vinyl Chloude	2800	280	28	(<1 ft	380	<10	< 0.51	<20	<1.0	<41	<41	54R	<4 1	<1.0	<1	<20	<2.0	< 0.51	<41	16

See last page of table for notes Haley & Aldrich Inc

TABLE 1 SOIL VAPOR INTRUSION INVESTIGATION RESULTS Former Scott Fetzer Facility - NBFF OU3 Bronson Michigan

							•												
			Address				N.												
			Sample Type	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Sub Slab	Indoor Air	Indaor Air	Indoor Air	Soil Gas	Sub Slab	Indoor Air	Soil Gas	Soil Gas	Soil Gas	Indoor Air	Indoor Air
			Sample ID	SFSG01	SFSG01	SFSG01	SFSG01	SFSS01	SFIA01	SFIA01	SFIA01	SFSG05	SFSS05	SFIA05	SFSG05	SFSG05	SFSG05	SFIA05	SFIA05
	`		Units	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³
			Sample Date	9/26/2007	1/15/2008	5/7/2008	8/19/2008	8/21/2008	8/20/2008	12/15/2008	12/30/2008	9/27/2007	10/31/2007	10/31/2007	1/16/2008	5/7/2008	8/19/2008	8/18/2008	12/30/2008
Constituent	DEEP 5' Residential	Sub-Slab Residential	NBFF Indoor Air																
	ASGSCs (ug/m³)	ASGSC (ug/m³)	Removal Criteria (ug/m3)																
Chloroethane	5000000	500000	100000	<11	< 0 53	<2 1	<1.1	<4 2	< 0 53	<21	<0.53	<21	<1.1	<11	<11	<42	<21	< 0 5 3	< 0 53
1 1-Dichloroethane	260000	26000	5000	<16	<0.8	<32	<16	<64	<0 B	<32	<0.8	60	5 B	<16	29	8.4	<32	<0.8	<0.8
1 1-Dichloroethylene	250	25	2000	<16	< 0.79	<32	<16	<63	< 0.79	<32	<0.79	<32	<16	<16	<16	<63	<32	< 0.79	<0.79
cis-1,2-Dichloroethylens	18000	1800	350	<16	<0.79	<32	<1.6	10	< 0.79	<32	10	11413	87	<16	2100	1300	550	<0.79	< 0.79
trans-1 2-Dichloroethylene	37000	3700	700	<16	< 0.79	<32	<16	<63	< 0.79	<32	< 0.79	198	59	<16	87	25	120	< 0.79	<0.79
Tetrachloroethene	21000	2100	81	48	14	33	95	<11	<14	<54	<14	180	75	<27	95	750	430	<14	<14
1 1 1-Trichloroethane	500000	50000	22000	<22	<11	<4.4	<22	<8 7	<11	<44	<11	213	20	<22	92	41	130	<11	<11
1 1 2-Trichloroethane	750	75	15	<22	<11	<4.4	<22	<8 7	<1 1	<44	<1 1	<44	<2 2	<22	<22	<8 7	<44	<11	<11
Trichloroethene	7000	700	2 2	750	270	480	1200	2500	20	75	54	22554	1300	10	4700	4200	2100	47	11
Vinyl Chloride	2800	260	28	<10	<0.51	• <2 0	<10	<41	< 0.51	<20	1.4	<20	<10	<10	<10	<4 1	<20	< 0.51	< 0.51

			Address			Man						No					
			Sample Type	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas-Confirmation	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas-Confirmation	Soil Gas	Soil Gas	Soil Gas	Soil Gas
			Sample ID	SFSG12	SFSG12	SFSG12	SFSG12	SFSG12	SFSG10	SFSG10	SFSG10	SFSG10	SFSG10	SFSG07	SFSG07	SFSG07	SFSG07
			Units	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³
			Sample Date	9/27/2007	1/16/2008	5/5/2008	8/18/2008	8/19/2008	9/27/2007	1/16/2008	5/5/2008	8/18/2008	8/19/2008	9/27/2007	1/16/2008	5/5/2008	8/18/2008
Constituent	DEEP 5' Residential	Sub-Slab Residential	NBFF Indoor Air													_	
	ASGSCs (ug/m³)	ASGSC (ug/m³)	Removal Criteria (ug/m3)														
Chloroethane	5000000	500000	100000	< 0 53	< 0 5 3	<21	<2 1	<1.1	< 0 53	< 0 53	<2 1	<2 1	<21	< 0 53	< 0 53	< 0 53	< 0 53
1 1-Dichloroethane	260000	26000	5000	<0.80	<0.80	<32	<32	<16	<0.80	<0.80	<32	<32	<32	<0.80	<0.80	<08	<0.8
1 1-Dichloroethylene	250	25	2000	<0.79	< 0.79	<32	<32	<16	<0.79	<0.79	<32	<32	<32	< 0.79	<0.79	< 0.79	<0.79
cis-1 2-Dichloroethylene	18000	1800	350	<0.79	<0.79	<32	<32	<16	<0.79	<0.79	<32	<32	<32	<0.79	<0.79	< 0.79	<0.79
trans-1 2-Dichloroethylene	37000	3700	700	<0.79	<0.79	<32	<32	<16	<0.79	<0.79	<32	<32	<32	< 0.79	< 0.79	<0.79	< 0.79
Tetrachloroethene	21000	2100	81	<14	<14	3500	180	350	2	<14	4500	450	200	<7.4	<14	39	<14
1 1 1-Trichloroethane	500000	50000	22000	<11	<11	<44	<4 4	<22	<11	<11	<44	<4 4	<4.4	<11	<11	<11	<11
1 1 2-Trichloroethane	750	75	15	<11	<11	<44	<4 4	<22	<11	<1.1	<4 4	<44	<44	<11	<11	<11	<11
Trichloroethene	7000	700	2 2	<1.1	<11	<43	<43	<21	<11	<11	<43	<43	<43	<11	<11	<11	<11
Movil Chlorida	2800	280	29	-0 F1	-0.61	-20	<20	<1.0	en 51	<0.51	~ 0	c2 0	-20 I	<0.51	c0 51	c0.51	c0.51

See last page of table for notes Haley & Aldrich Inc

			Address		M	Ma			Man				Mon r	oonon	oive				
			Sample Type	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Indoor Air	Soil Gas	Soil Gas	indoor Air	Soil Gas	Indoor Air	Soil Gas	Soil Gas	Soil Gas	Soil Gas
			Sample ID	SFSG08,	SFSG08	SFSG08	SFSG08	SFSG09	SFSG09	SFSG09	SFSG09	SFSG13	SFIA13	SFSG13	SFIA13	SFSG13	SFSG14	SFSG14	SFSG14
			Units	ug/m³ `	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	u g/ m³	ug/m³	ug/m³
			Sample Date	9/27/2007	1/16/2008	5/5/2008	8/19/2008	9/26/2007	5/9/2008	5/8/2008	8/19/2008	10/31/2007	1/16/2008	5/8/2008	5/8/2008	8/21/2008	10/31/2007	5/8/2008	8/20/2008
Constituent	DEEP 5' Residential	Sub-Slab Residential	NBFF Indoor Air																$\overline{}$
	ASGSCs (ug/m²)	ASGSC (ug/m³)	Removal Criteria (ug/m3)																
Chloroethane	5000000	500000	100000	< 0 53	< 0 53	<0.53	< 0 53	<2 1	<11	< 0 53	<42	<21	<11	<21	<21	<420	<0.53	< 0 53	<0.53
1 1-Dichloroethane	260000	26000	5000	<0.80	<0.8	<08	<0.8	<32	<16	<0.80	<64	<32	<16	<32	< 3 2	<640	<0 80	<0 80	<0.80
1 1-Dichloroethylene	250	25	2000	<0.79	<0.79	<0.79	< 0.79	<32	<16	<0.79	<63	<32	<16	<32	<32	<630	<0.79	<0.79	<0.79
cis-1 2-Dichloroethylene	18000	1800	350	<0.79	< 0.79	< 0.79	< 0.79	<32	<16	< 0.79	<63	63	<16	170	<32	<630	< 0.79	<0.79	<0.79
trans-1 2-Dichloroethylene	37000	3700	700	<0.79	<0.79	<0.79	<0.79	<32	<16	<0.79	<63	<32	<16	48	<32	<630	<0.79	<0.79	<0.79
Tetrachloroethene	21000	2100	81	<14	<14	<14	,<1.4	10	38	<14	16	570	5 6	240	<54	<1100	<14	<14	<14
1 1 1-Trichloroethane	500000	50000	22000	<11	<11	<11	´<1 1	<4.4	<22	<11	<87	<44	<22	<44	<4 4	<870	<11	<11	<11
1 1 2-Trichloroethane	750	75	15	<11	<11	<11	<1.1	<4.4	<22	<11	<87	<44	<22	<44	<44	<870	<11	<11	<1.1
Trichloroethene	7000	700	2 2) 3	<11	1.2	2 3	280D	1400	<11	1800	25000	<21	19000	<43	26000	10	<11	<11
Vinyl Chloride	2800	280	28	< 0.51	< 0.51	< 0.51	< 0.51	<2.0	<10	<0.51	<41	<20	<1	<20	<20	<410	< 0.51	< 0.51	< 0.51

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TABLE SOIL VAPOR INTRUSION INVESTIGATION RESULTS

Former Scott Fetzer Facility - NBFF OU3 Bronson, Michigan

NOTES:

- 1 Detected concentrations are presented in BOLD text
- 2 Detected concentrations exceeding screening criteria are highlighted in BOLD text
- 3 <= Not detected Numerical value equals the Reporting Detection Limit (RDL)
 4 Acceptable Soil Gas Screening Criteria (ASGSC) based on Michigan DEQ Guidance, February 2006
- 5 NBFF Indoor Air Removal Criteria based on USEPA 10⁻⁴ Excess Lifetime Cancer Risk or a Hazard Index of 10
- 6 Volatile organic compounds were analyzed using EPA Method TO-15 by Environmental Science Corp. of Mt. Juliet, Tennessee
- 7 R Rejected result. Indoor Air samples collected during the September 2007 SVI investigation were impacted by trash burning that occurred during the sampling event

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Haley & Aldrich, Inc. February 2008

Education

Ohio University, M S Hydrogeology, 1997 Illinois State University, B S Geology, 1994

Professional Registration

2007/Arizona Registered Geologist (Reg No 46379) 2006/California Professional Geologist (Reg No 8280) 2007/Kentucky Professional Geologist (Reg No 2418)

Special Studies and Courses

40-Hour OSHA Health & Safety (29 CFR 1910 120) PSMJ Resources, Inc., Project Management Bootcamp, 2007 National Groundwat er Association, The MODFLOW Course, 2004 3-week summer course in hydrogeology, Ohio University, Athens, 1997

Professional Societies

Arizona Hydrological Society Arizona Geological Society In his eight years of experience as a hydrogeologist, Mr. Pigati has participated in numerous soil, soil gas, and groundwater investigations, primarily related to the historical release of chlorinated solvents and metals. These investigations are generally related to Comprehensive Environmental Response, Compensation and Liability Act (CERCLÁ) (Kansas and Michigan); Resource Conservation and Recovery Act (RCRA) Corrective Action (California and Kentucky); or to property redevelopment. He has experience conducting and evaluating aquifer tests, database management related to remedial investigations, drilling and construction of monitoring wells using hollow stem auger and rotary drilling methods, groundwater and soil sampling, evaluation of water quality data, preparation of groundwater flow maps and geologic cross sections, and groundwater flow modeling using MODFLOW. He also prepares contracts and work plans, manages field investigations, and prepares site investigation reports.

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Relevant Project Experience

Confidential Manufacturer, Central U.S. Project manager for a complex RCRA closure and corrective action site overseen by the Region 4 Environmental Protection Agency (EPA). Preparation of subcontractor bidding and contracts, work plans, and site investigation reports. Coordination and oversight of monitor well installation in bedrock, annual groundwater monitoring and reporting, and preparation of a comprehensive site conceptual model incorporating all available data.

Confidential Client, Bronson, MI. Preparation of Remedial Investigation (RI) and Feasibility Study (FS) reports for a CERCLA (Superfund) site overseen by the Region 5 EPA. The RI/FS reports incorporated data from an extensive soil, soil gas and groundwater investigation. Assisted in the preparation of the Human Health Based Risk Assessment (HHRA) incorporated into the RI report. Project manager for soil vapor intrusion work conducted at the site.

Conexant Systems, Inc., Newport Beach, CA. Writing of groundwater monitoring reports for a semiconductor manufacturing facility and a comprehensive summary report of remedial activities conducted at the site. Responsible for an extensive soil and soil gas investigation involving direct-push soil sampling and installation of permanent soil gas probes, and preparation of the investigation summary report. Assisted in the preparation of the HHRA associated with the investigation. Responsible for coordination and oversight of annual groundwater monitoring program.

Confidential Aerospace Manufacturer, Western U.S. Assisted in the database management for an extensive soil sampling program for the manufacturing facility. Construction of geologic cross-sections and chemical concentration contour maps. Preparation and uploading of all site-related documents onto the client's internet portal. Unsaturated flow modeling using the seasonal soil compartment model (SESOIL) to assist in risk assessment calculations at the facility. Writing of data reports for the site summarizing the soil and groundwater sampling programs.

Confidential Aerospace Manufacturer, Midwestern U.S. Responsible for installation, sampling, and hydraulic testing of numerous monitoring wells at a CERCLA site. Also conducted data compilation and interpretation using the

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results of the drilling program as well as report writing.

Confidential Aerospace Manufacturer, Western U.S. Conducted groundwater sampling and measured groundwater elevations as part of an annual domestic well sampling program. Installation of numerous monitoring and water supply wells up to 500 ft deep, using the air rotary/casing hammer method. Conducted hydraulic testing of an extraction well field. Constructed two groundwater flow models using Visual MODFLOW. Wrote numerous work plans and reports related to groundwater investigations.

Confidential Aerospace Manufacturer, Western U.S. Assisted in the database management for an extensive soil sampling program for the former manufacturing facility. Construction of geologic cross-sections and chemical concentration contour maps. Responsible for installation and sampling of numerous monitoring wells using the hollow stem auger method to depths of approximately 100 feet.

Confidential Aerospace Manufacturer, Western U.S. Measured groundwater elevations, collected groundwater samples and assisted in compilation and evaluation of groundwater quality data as part of the quarterly sampling program for a RCRA Corrective Action site overseen by the California Department of Toxic Substances Control Board (DTSC). Responsible for installation and sampling of numerous monitoring wells using the air rotary method.

Confidential Aerospace Manufacturer, Western U.S. Responsible for soil sampling at the former facility using direct push methods. Conducted data compilation and interpretation using the results of previous investigations and the Haley & Aldrich drilling program, and prepared the site investigation report.

Raytheon Company, Tucson, AZ. Responsible for soil sampling at Air Force Plant No. 44 operated by the Raytheon Company within an area impacted with cutting oil. Assisted in the preparation of contracts and managing subcontractors. Conducted data compilation and interpretation using the results of previous investigations and the Haley & Aldrich drilling program, as well as wrote the site investigation report.

Rockwell Scientific Company, Thousand Oaks, CA. Wrote annual groundwater monitoring reports for the Rockwell Science Center and a comprehensive summary report of remedial activities conducted at the site.

Skyworks Facility, Thousand Oaks, CA. Constructed a groundwater flow model of a French-drain and recharge well system at the facility. Responsible for installation and development of four recharge wells using the air rotary/casing hammer method. Writing of annual groundwater monitoring reports for the Skyworks Facility.

Confidential Client, Southern Arizona. Compilation and interpretation of complex geologic and groundwater data for an open pit copper mine in southern Arizona. Historical data included 20 years of well drilling, groundwater sampling, longhole drilling and pit wells for mine dewatering, and bedrock structure mapping. Construction of geologic cross sections and bedrock structure, saturated thickness, groundwater flow, and sulfate concentration contour maps. Writing of comprehensive summary report incorporating all of the above information and groundwater sampling and well installation work plans.

Conservation Properties, Inc., Patagonia, AZ. Responsible for the drilling,

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groundwater sampling, and hydraulic testing of two wells and the drilling of one test boring at depths up to 960 feet related to a water supply project in southern Arizona. Involved lithologic description, geologic interpretation of the structural basin, the construction of a three-dimensional groundwater flow model, and conducting 72-hour pumping and recovery tests for the production wells. Prepared the summary report incorporating data collected during field work and the groundwater flow model.

Rapps Engineering & Applied Science, Various Solid-Waste Disposal Facility Projects, Central Illinois. Assisted the firm in the siting and construction of solid-waste disposal facilities. Assisted in installation of monitoring wells, measuring groundwater elevations and groundwater sampling. Constructed geologic cross-sections, isopach maps and chemical concentration contour maps. Assisted in database management of groundwater sampling results and report writing.

